

Appl. No. 10/517,327

IN THE CLAIMS

1. (Currently Amended) An integrated circuit for a data carrier, which integrated circuit comprises the following means:

a first terminal and a second terminal, wherein the two terminals are provided for connection with transmission means of the data carrier, and

an ESD protection circuit, which is connected between the two terminals and which comprises a series connection consisting of a first protection diode and a protection stage, which protection stage may be brought from a blocking state into a conductive state by exceeding a voltage threshold, and which comprises a second protection diode connected in parallel with the series connection and in opposition to the first protection diode of the series connection, and

a rectifier circuit, which is connected to the ESD protection circuit and comprises a rectifier diode connected in parallel with the ESD protection circuit (8),

wherein the rectifier diode of the rectifier circuit takes the form of a Schottky diode with a parasitic p/n junction and wherein the Schottky diode with the parasitic p/n junction forms the a second protection diode of the ESD protection circuit.

2. (Previously Presented) An integrated circuit as claimed in claim 1, wherein the rectifier circuit takes the form of a voltage doubler circuit.

3. (Currently Amended) A data carrier for contactless communication with a communications station, which data carrier comprises transmission means and an integrated circuit connected with the transmission means, which integrated circuit comprises the following means:

11 a first terminal and a second terminal, wherein the two terminals are connected with the transmission means, and

an ESD protection circuit, which is connected between the two terminals and which comprises a series connection consisting of a first protection diode and a protection stage, which protection stage may be brought from a blocking state into a conductive state by exceeding a voltage threshold, and ~~which comprises a second protection diode connected in parallel with the series connection and in opposition to the first protection diode of the series connection, and~~

a rectifier circuit, which is connected to the ESD protection circuit and comprises a rectifier diode connected in parallel with the ESD protection circuit,

wherein the rectifier diode of the rectifier circuit takes the form of a Schottky diode with a parasitic p/n junction and wherein the Schottky diode with the parasitic p/n junction forms the a second protection diode of the ESD protection circuit.

4. (Previously Presented) A data carrier as claimed in claim 3, wherein the rectifier circuit takes the form of a voltage doubler circuit.

5. (New) An integrated circuit, comprising:

an ESD protection circuit coupled between a first node and a second node, the ESD protection circuit having a first diode coupled anode-to-cathode between the first node and the second node; and

a rectifier circuit coupled between the first node and the second node, the rectifier circuit having a Schottky diode, the Schottky diode including a parasitic p/n junction diode coupled anode-to-cathode between the second node and the first node;

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wherein first diode and the parasitic p/n junction diode together provide electrostatic discharge protection.

6. (New) The integrated circuit of Claim 5, wherein the first node and the second node are connected to a dipole antenna.